

CLAIMS

- 1 1. A confined space monitoring system comprising:
 - 2 a mammalian body detector sensing a confined space;
 - 3 a thermocouple measuring a temperature within the confined space
 - 4 relative to a thermal threshold; and
 - 5 an alarm subsystem communicating to a remote location that the
 - 6 temperature in the space is beyond the thermal threshold and an occupant is
 - 7 within the space subsequent to a condition precedent.
- 1 2. The system of claim 1 wherein the confined space is selected
- 2 from the group consisting of: a building structure, a vehicle passenger
- 3 compartment, and a vehicle trunk.
- 1 3. The system of claim 1 wherein the alarm subsystem is a
- 2 wireless transmitter.
- 1 4. The system of claim 3 wherein the wireless transmitter is a
- 2 cellular communication transmitter.
- 1 5. The system of claim 3 wherein said alarm subsystem comprises
- 2 an auditory alarm indicating that the temperature in the space exceeds a
- 3 thermal threshold and the occupant is within the space.

1 6. The system of claim 1 wherein the condition precedent is the
2 temperature within a vehicle confined space being above the threshold for a
3 predetermined amount of time with the occupant therein.

1 7. The system of claim 5 wherein the condition precedent is
2 failure to reset the auditory alarm within a preselected amount of time.

1 8. The system of claim 1 wherein said alarm subsystem has a
2 burglar detection mode that communicates an emergency signal to a remote
3 location upon detecting the occupant within the space and independent of the
4 temperature being beyond the thermal threshold.

1 9. The system of claim 8 further comprising a video camera
2 activated to collect an image as part of the emergency signal.

1 10. The system of claim 1 further comprising a video camera.

1 11. The system of claim 5 wherein said video camera is activated
2 upon the temperature within the confined space exceeding the thermal
3 threshold and the occupant is within the space.

1 12. The system of claim 5 wherein a video image is transmitted
2 remotely by the alarm subsystem.

1 13. The system of claim 1 wherein said mammalian body detector
2 comprises a type of sensor selected from the group consisting of: infrared,
3 vibration, and carbon dioxide.

1 14. The system of claim 3 further comprising a wireless receiver,
2 said receiver comprising:

3 a housing;
4 a wireless antennae for receiving an emergency signal from said alarm
5 subsystem;
6 a display for providing the emergency signal in human recognizable
7 form;
8 a digital memory for storing images;
9 a data transmission portal; and
10 a receiver battery power supply.

1 15. The system of claim 14 wherein the receiver housing has an
2 aperture engaging a key ring.

1 16. The system of claim 14 wherein the housing includes a coding
2 label selected from the group consisting of: a bar code, a one dimensional bar
3 code, and a two dimensional bar code.

1 17. The system of claim 1 further comprising location information
2 communicated to the remote location by said alarm subsystem.

1 18. The system of claim 16 further comprising a global positioning
2 satellite system providing the geographic location information when the
3 confined space is within a vehicle.

1 19. A confined space monitoring system comprising:
2 a mammalian body detector sensing a vehicle compartment;
3 a thermocouple measuring a temperature within the vehicle
4 compartment relative to a thermal threshold;
5 a switch automatically opening a vehicle portal in response to the
6 temperature within the vehicle compartment exceeding the thermal threshold
7 and said detector sensing an occupant within the vehicle compartment; and
8 an alarm subsystem automatically communicating to a remote location
9 that the temperature in the vehicle compartment is beyond the thermal
10 threshold and the occupant is within the vehicle compartment.

1 20. The system of claim 18 wherein the alarm subsystem comprises
2 a wireless transmitter.

1 21. The system of claim 19 further comprising an auditory alarm
2 indicating that said switch has been activated.

1 22. The system of claim 18 further comprising a video camera.

1 23. The system of claim 21 wherein said video camera is activated
2 upon the temperature within the vehicle compartment exceeding the thermal
3 threshold and the occupant is within the vehicle compartment.

1 24. The system of claim 21 wherein a video image is transmitted
2 remotely by the alarm subsystem.

1 25. The system of claim 18 wherein the vehicle portal is selected
2 from the group consisting of a window, sunroof, and trunk.

1 26. The system of claim 18 further comprising vehicle location
2 information communicated to the remote location by said alarm subsystem.

1 27. The system of claim 25 further comprising a global positioning
2 satellite system providing the geographic location information.

1 28. The system of claim 19 wherein the cellular communication
2 transmitter transmits a signal suitable for triangulation to locate the vehicle
3 compartment.

1 29. A wireless communication receiver comprising:
2 a housing;
3 a wireless antennae for receiving an emergency signal from an alarm
4 subsystem of claim 1;
5 a display for providing the emergency signal in human recognizable
6 form;
7 a digital memory for storing images recallable on said display;
8 a data transmission portal; and
9 a receiver battery power supply.

1 30. The system of claim 29 wherein the receiver housing has an
2 aperture engaging a key ring.

1 31. The system of claim 29 wherein the housing includes a coding
2 label selected from the group consisting of: a bar code, a one dimensional bar
3 code, and a two dimensional bar code.

1 32. A process for releasing a trapped occupant from a confined
2 space comprising the steps of:
3 disposing a mammalian body detector in the space;
4 sensing a temperature within the space;
5 comparing the temperature with a preselected threshold temperature;
6 and

7 activating a wireless transmitter alarm subsystem in response to a
8 condition precedent of a failure to reset an auditory alarm or the temperature
9 remaining above the threshold with the occupant present for a preselected
10 amount of time.

1 33. The process of claim 31 further comprising the step of:
2 opening a portal in the space when the occupant is detected within the
3 space and the temperature therein is beyond the threshold for the preselected
4 amount of time.

1 34. The process of claim 33 wherein the wireless transmitter
2 further communicates a location for the space.

1 35. The process of claim 33 wherein said wireless transmitter
2 operates as a location triangulation beacon.

1 36. The process of claim 33 further comprising the step of
2 disposing a video camera in the space and transmitting a video image by way
3 of said wireless transmitter.